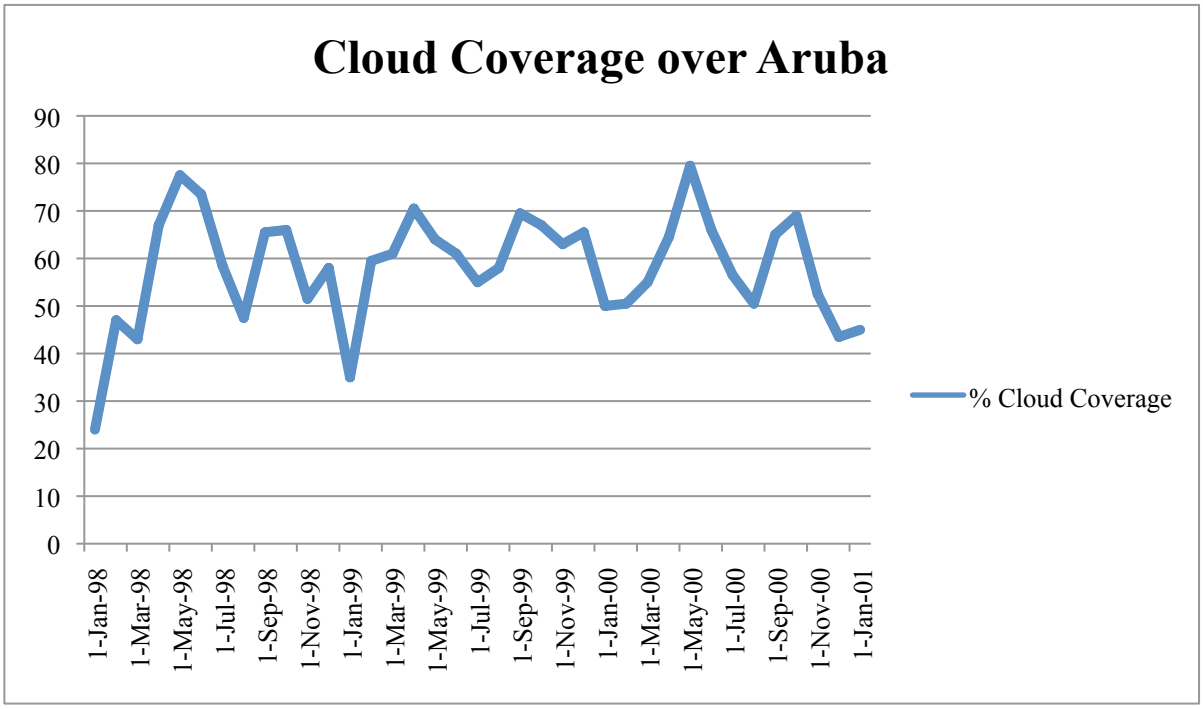
Lesson 5: Aruba Cloud Cover Measured by Satellite



Questions:

1. For the period of time shown on the graph

a. What was the highest percentage of cloud cover and during which month and year did it occur?

79.5%, during May of 2000

b. What was the lowest percentage of cloud cover and during which month and year did it occur?

24%, during January of 1998

2. Were any months completely cloud-free? Explain your answer by referring to the data or graph.

No months were completely cloud free. Students should be able to tell this by looking at the data and the graph and seeing that there is no time when there is only 0% cloud cover.

3. Referring to the graph or data,

a. For how many months was the cloud coverage 60% or greater?

Eighteen months

b. What is the percentage of total months with 60% or greater cloud cover? Show your calculations.

18 months out of 37 months=18/37=.486, which equals to 48.6%

Extensions:

1. Referring to the graph, do you notice any patterns in cloud coverage? For example, during which months did cloud coverage increase or decrease? Are there additional patterns? Explain with examples from the graph.

Students should analyze both the graph and the data, paying attention to the different months and seasons. They should notice there is generally high cloud cover in the summer months, and January and other winter months are usually the most clear.

2. Did the percentage of cloud cover change from 1998 to 2001? Justify by calculating the average percentage cloud cover for each year. Show an example of your calculations.

Students can calculate the average cloud cover for each year by adding up the cloud cover for each month and then dividing by twelve. Average cloud cover for 1998 is 56.6%, 1999 is 60.75%, and 2000 is 58.5%. This shows that the average cloud cover percentage is increasing, but not at a steady rate.

3. Consider the location of Aruba. How close to the equator is Aruba? How might this affect the percentage of cloud cover?